THERMAL DYNAMICS®

PAK MASTER **XL PLUS** PLASMA CUTTING SERIES

New Products

PAK MASTER 50 XL PLUS
GENUINE CUT 1/2" (13mm)
SEVERANCE CUT 3/4" (19mm)

PAK MASTER 75 XL PLUS
GENUINE CUT 3/4" (19mm)
SEVERANCE CUT 1" (25.4mm)

PAK MASTER 100 XL PLUS
GENUINE CUT 1" (25.4mm)
SEVERANCE CUT 1 1/4" (31.8mm)

All the Features of the PAK MASTER XL Series

Plus

- New 3 Year Warranty
- Ergonomic Torch Handle with Bottom Trigger Switch
- Increased Current Output
- Trigger Latch Circuit
- Improved Torch Lead Durability and Flexibility

PAK MASTER XL PLUS PLASMA CUTTING SERIES

Product Sales Guide

Literature No. 0-2775

Table of Contents

XL PLUS Series Sales Guide

Section I _____ *Product Introduction*

Section II _____ *50 XL PLUS*

Section III _____ *75 XL PLUS*

Section IV _____ *100 XL PLUS*

Section V _____ *Product Viewpoint*

Section VI _____ *Ordering Information*

Section VII _____ *Who to Contact*

Section VIII _____ *Product Literature*

THERMAL DYNAMICS®
A THERMADYNE® Company

Section I

Product Introduction

Contents

Focus Letter

Product Introduction

THERMAL DYNAMICS®

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A THERMADYNE Company

ROBERT BROWN
PRODUCT SPECIALIST, MANUAL SYSTEMS

THERMAL DYNAMICS CORPORATION
INDUSTRIAL PARK #2
WEST LEBANON, NH 03784-2006
PHONE: 603-298-5711
FAX: 603-298-5720
Email tdctech@Thermadyne.com

April 9, 1999

Subject: New Product Introduction

Dear Thermal Dynamics District Manager:

Thermal Dynamics is pleased to introduce the **Pak Master™ XL Plus** series, our latest addition to the **XL** family of Manual Plasma Cutting Systems.

The Pak Master™ XL Plus series, **The PakMaster 50XL Plus ½" (13mm), the PakMaster 75XL Plus 3/4" (19mm) , and the PakMaster 100XL Plus 1" (25mm)** are built upon the same reliable technology as our other highly successful XL cutting systems **Plus** the following new added features:

- New Increased Output Performance- Increased thickness and cutting speeds
- New Ergonomic Torch handle with Bottom trigger- for increased comfort
- New Trigger Latch Circuit- to allow for the trigger switch to be latched for continuous operation
- New Durable and Flexible Torch Leads- for added resistance to wear and tear and improved flexibility

This reliability in combination with the performance and arc visibility of either the **PCH-40, PCH-60** or the **PCH-80 plasma torch** will provide metal cutters around the world with an extremely cost effective, high performance plasma system for cutting all thickness of metals from gauge up to **1" (25mm)** and for those gouging needs as well.

An added feature is the **XL Plus's** Exclusive **Tip Saver Circuit** which prevents excessive tip wear at higher current should the tip accidentally touch the metal, saving the torch tip from premature failure.

The **Pak Master™ XL Plus** series also will be introduced with a **NEW 3 YEAR WARRANTY** as a signature of Thermal's confidence in reliability and performance.

For further information on the **Pak Master™ XL Plus** series or any other Thermal Dynamics products, please feel free to contact TDC Technical Service directly at Tel: (603) 298-5711, Fax: (603)298-0558, Email: tdctech@Thermadyne.com

The Pak Master XL Plus Series are exciting new products which continues the Thermal Dynamics tradition of "More than 40 years of Plasma Cutting Excellence".

Sincerely,

Robert Brown
Product Specialist, Manual Systems

THERMAL DYNAMICS®
A THERMADYNE® Company

Pak Master® XL Plus

Product Introduction

The **Pak Master™ XL Plus** series brings the Thermal Dynamics XL series to NEW levels of performance and reliability. With a NEW **3 YEAR WARRANTY** the **Pak Master™ XL Plus** continues the tradition by delivering industry leading features such as Tip Saver™ Fold Back Circuit, Smart Start™ Auto pilot, and Smart Logic™ over voltage protection.

The **PakMaster 50XL Plus ½" (13mm),** the **PakMaster 75XL Plus 3/4" (19mm) ,** and the **PakMaster 100XL Plus 1" (25mm)** are built upon the same reliable technology as our other highly successful XL cutting systems **Plus** the following new added features:

- New Increased output performance- Increased thickness and cutting speeds
- New Ergonomic Torch handle with Bottom trigger- for increased comfort
- New Trigger Latch circuit- to allow for the trigger switch to be latched for continuous operation
- New Durable and Flexible torch leads- for added resistance to wear and tear and improved flexibility.

The system's new ergonomic torches provide excellent arc access and cut area visibility. Also, with a simple change of torch consumable parts the systems can provide high performance plasma gouging capability.

Experience the difference the XL Plus systems can truly provide…

Manual Plasma at its finest

9-APR-99 xlp

Section II

Pak Master 50 XL PLUS

Contents

Product Introduction

System Features

Specifications

Applications

Product Comparisons

Demo Tips

THERMAL DYNAMICS®

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THERMAL DYNAMICS

PakMaster 50 XL PLUS

3 YEAR WARRANTY

MADE IN THE U.S.A.

	Capacity
Genuine Cut	½ "(13mm)
Severance Cut	¾ "(19mm)

Thermal Dynamics has combined the proven reliability and performance of the XL series Plasma Cutting Systems PLUS increased the output amperage to 40 Amps, PLUS increased the warranty period to 3 years, PLUS added many new features to create the new XL PLUS series. The unit has additional output current for added speed while maintaining their genuine cutting capacity. Through a simple change over procedure and use of appropriate input power cable and plug, this unit will accept multi-voltage input power from 208 vac to 460 vac +/- 10%, 50 Hz or 60Hz, single or three phase. 575 vac can be utilized with the addition of the optional transformer unit. The Smart Logic™ circuit protects the unit in the event that a higher input voltage is applied. A new ergonomic torch handle and trigger latch circuit provides greater operator comfort and ease of operation. The Smart Start™ circuit allows for automatic arc re-initiation if the cutting arc is interrupted. These features make the new XL PLUS series operator friendly, while maintaining maximum cut performance.

The **Pak Master 50XL PLUS** which operates on compressed air or nitrogen, offers the "new" **PCH/M-40 Ergonomic Torch** for improved comfort and reduced fatigue, a "new" robust torch head design, and new torch leads providing improved durability and flexibility. With all these operator friendly features, this system is the best choice in the market.

System Features:

- **Genuine Cut Ratings - Quality Cuts @ 1/2"**
- **Smart Logic™ Over Voltage Protection**
- **Smart Start™ Auto Pilot Restart**
- **Universal Input Power**
- **Continuously Variable Output Current Control**
- **Flow Through Design**
- **LED Status Lights**
- **Capacitive Discharge Pilot Arc Initiation**
- **Portable & Light Weight**
- **Gouging Capability**
- **Leads & Spare Parts Kit Storage**
- **Hand & Machine Torch Systems**
- **IP-23C Protection Certified -Water Spray Test**
- **CSA Certified to CSA22.2 No. 60**

PLUS

- **3 Year Warranty**
- **Trigger Latch Circuit**
- **Ergonomic Torch Handle and Bottom Trigger**
- **Improved Torch Leads Durability and Flexibility**
- **Increased Output for Improved Performance and Travel Speeds**

PAK MASTER XL PLUS PLASMA CUTTING SERIES

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The Newest Addition To Our XL Family

THERMAL DYNAMICS

PakMaster™ 50 XL™ PLUS

MADE IN THE U.S.A.

3 YEAR WARRANTY

Genuine	½" (13mm)	Cut
Severance	¾" (19mm)	Cut

NEW

Hand / Machine

Plasma Cutting System

A World Class Leader

Genuine	½" (13mm)	Cut
Severance	¾" (19mm)	Cut

System Features:

- Genuine Cut Ratings - Quality Cuts @ 1/2”
- Smart Logic™ Over Voltage Protection
- Smart Start ™ Auto Pilot Restart
- Universal Input Power
- Continuously Variable Output Current Control
- Flow Through Design
- LED Status Lights
- Capacitive Discharge Pilot Arc Initiation

THERMAL DYNAMICS
A THERMADYNE COMPANY

A World Class Leader

Genuine	½" (13mm)	Cut
Severance	¾" (19mm)	Cut

System Features:

- ***Portable & Light Weight***
- ***Gouging Capability***
- ***Leads Wrap & Spare Parts Kit Storage***
- ***Hand & Machine Torch Systems***
- ***IP-23C Protection Certified -Water Spray Test***
- ***CSA Certified to CSA22.2 No. 60***

THERMAL DYNAMICS

A THERMADYNE COMPANY

Genuine	½" (13mm)	Cut
Severance	¾" (19mm)	Cut

PLUS...

- ***New 3 Year Warranty!***
- ***New Trigger Latch Circuit***
- ***Increased Output for Improved Performance and Travel Speeds***

THERMAL DYNAMICS

A THERMADYNE COMPANY

THERMAL DYNAMICS

PakMaster™ 50 XL™ PLUS

3 YEAR WARRANTY

MADE IN THE U.S.A.

Genuine	½" (13mm)	Cut
Severance	¾" (19mm)	Cut

PLUS...

- ***New PCH-40 Ergonomic Torch Handle and Bottom Trigger***
- ***New Improved Torch Leads for Durability and Flexibility***
- ***Maximum Life™ Parts***

THERMAL DYNAMICS

A THERMADYNE COMPANY

THERMAL DYNAMICS

A THERMADYNE COMPANY

Specifications...

- ***Genuine 1/2” (13mm) Cut Capacity***
- ***Variable Current Output 15-40 amps***
- ***Multi-Voltage 208 - 460 Volt, 1/3 ph (35/17Amps,1ph or 20/10 Amps,3ph) 50/60 Hz***
- ***100 % Duty Cycle @ 40 DCA***
- ***Smart Logic™ Over Voltage Protection***
- ***Smart Start™ Auto Pilot***

PAK MASTER 50 XL PLUS

Cutting System Specification

Power Supply	
Output:	15-40 Amps - Continuously variable
Input Power:	208-460 VAC (+/-10%)
	1/3 Phase, 50/60Hz
	35/17 Amps 1 Phase
	20/10 Amps 3 Phase
Duty cycle:	100% @ 40 A
Panel Controls:	On/Off Switch
	Run/Set/Latch Switch
	Output Current Potentiometer
Panel Indicators:	AC Power
	Temperature
	Gas Pressure
	DC Output
Dimensions:	Height: 16 (406mm)
	Width: 13” (330mm)
	Length: 24.8” (630mm)
Weight:	66 lbs. (29.9 Kg)
Capacity:	1/2” (13mm)
	3/4” (19mm) Severance
Work Cable Length:	20 ft (6.1m)

Torch	
Model:	PCH/M-40
Gas:	Air, Nitrogen
Gas Pressure:	70 PSI (4.8 Bar)
Gas Flow:	200 SCFH /3.3 CFM (95 lpm)
Pilot:	CD Start/ Pulsed DC
Control:	Hand switch
	Remote Pendant
	CNC Interface Cable
Torch Lead Length:	25 ft (7.6m)
	50 ft (15.2m)

Applications

- ***General Metal Fabrication and Maintenance***
- ***Plant Maintenance***
- ***In-Field Construction and Repair***
  - ***Will operate on most 8kw generators***
- ***HVAC and Structural Contractors***
- ***Manufacturers/Erectors of Stainless Steel Food Processing Equipment***

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Applications

- *Automobile and Truck Body Repair*
- *Transport Trailer Manufacture and Rebuilding*
- *Tank and Vessel Manufacture and Repair*
- *Light Pole Cutting and Fitting*
- *Rental Fleets*

PM 50XL Plus

Genuine 1/2" Rated Cut Capacity - 3/4" Severance

COMPETITIVE COMPARISON	THERMAL DYNAMICS Pak Master 50XL PLUS	HYPERTHERM Max 43	MILLER No Offering	ESAB PCM-500i	LINCOLN No Offering	Comments
Output Range	**15-40 Amps**	20-40 Amps		15-35 Amps		True widespread Cutting Range
Cut Capacity	**1/2" (12.7mm)**	1/2" (12.7 mm)		1/2" (12.7 mm)		Genuine 1/2" Plus Rated Cut Capacity
Severance Cut	**3/4" (19mm)**	3/4" (19 mm)		5/8" (16 mm)		Competitive Maximum Thickness Cutting Capacity
Input Voltage	**208 - 460 vac 1 or 3 ph 50/60 Hz**	208 - 460 vac 1or 3 ph 50/60 hz		208/230 vac 1 or 3 ph 460 vac 3 ph 575 vac 3 ph		Offers widespread Input Voltage Range
Power Source	Inverter	Inverter		Inverter		Design allows for compact size and portability
Arc Starting	**DC Pilot**	Internal contact start		DC Pilot		Smart Start technology provides ease of arc starting
Auto Pilot Restart	**Yes**	*No		Yes		For un-interrupted arc starting. Excellent for expanded metals
Flow-Thru Design	**Yes**	No		No		Flow-Thru design directs clean air to principal internal components
Over Voltage Protection	**Yes**	Yes		No		Smart Logic protects unit from improper input voltages
Amperage Adjustment	**Variable**	Variable		Variable		One of the largest current ranges offered
Torch	**PCH/M-40**	PAC 120		PT-31XL		Reliable proven torch design
Cutting Arc Visibility	**Excellent**	Fair		Good		Torch front end design allows for excellent visibility of arc and work piece
Dimensions	**16 (406 mm) 13" (330 mm) 24.8" (630 mm)**	9' (229mm) 12" (305 mm) 17" (432 mm)		9" (229 mm) 16" (406 mm) 18" (457 mm)		
Weight	**66lbs (30 kg)**	72 lbs (32.6kg)		57 lbs. [26 kg.]		Portable competive weight
Warranty	**3 Year**	2 Year		3 Year		New 3 year warranty

Pak Master is a trademark of Thermal Dynamics Corp.
Spectrum is a trademark of Miller Electric Co.
Powermax is a trademark of Hypertherm Co.
Pro-Cut is a trademark of Lincon Electric Co.

Rev: 06 Apr 99

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Customer Application Requirements

Product Demonstration.

It is very important to understand the customer's application and cutting requirements prior to committing to perform a **PAK MASTER 50XL PLUS** demo. The following guide can assist in conducting a professional and quality demonstration which will enhance the finalization of the sale.

Customer Application Requirements:

- **Type and thickness of material to be cut most often** - determines the rating of unit to be proposed
- **Maximum material thickness to be cut**- determines the maximum severance capacity of system
- **Cut requirements**
  - piercing- reduces parts life- 50% reduction in system cutting capacity
  - edge starts
  - beveling- increases cutting capacity requirement
  - cut quality- determines speeds required, cut angles, surface finish
- **Shop or Portable use** - determines unit size, input power requirements, weight, etc.
- **Manual or machine operation**- determines cut quality, production requirements, duty cycle

Equipment Requirements:

- **Available input power** (1 or 3 ph) - what voltage and what electrical connectors required
- **Gases**- what gases required, PSI requirements, regulators if cylinder gases used
- **Supplies** - Gloves, Helmets, Safety Glasses, Cutting Glasses, Light gauge metal
- **Accessories** - Cutting guides, standoff guides

Demonstration Requirements:

- **Confirmation**
  - Date and time of demonstration
  - A decision maker will be present to witness demonstration
  - Selected the proper unit and is set up for proper input power and cutting requirements
  - New torch consumables are installed in torch
- **Sales presentation**
  - Be prepared with product features and benefits - emphasize product strengths
  - Prepared quote - have a quote prepared to show decision maker
  - Be prepared with cost analysis- competitive cutting methods, competitive equipment information

Performing the Demonstration:

- **Basic explanation of your objectives**
    - Process definition (if required)
    - Discuss products features and benefits
    - Safety issues- how they are to be applied in demonstration
    - Use of accessory items - cutting guides, standoff guides and how they can assist the operation
- **Demo the product**
    - Make preliminary cuts on materials and thickness that will easily demonstrate the strengths of the product - ***Control The Demo***
    - **Get the torch into the hands of an operator**
        - show them how the system operates - allow them to practice on same materials as used for preliminary cuts
        - how to properly hold the torch - comfort, visibility, accessibility
        - show the difference between drag and standoff cutting modes
        - show them how to use accessory items
        - allow them to use system on their intended application

Finalize the sale:

- **Re-emphasize the capabilities and strengths of the product**
- **Emphasize your "Value Added "**
    - Service
    - Product availability
    - Support
- **Overcome any customer objections**
    - Pricing
    - Desire to look at other competitive units before purchasing
    - Got to get quotes
- **Ask for the order**
    - Be prepared to offer immediate delivery
- **Thank the Customer**
    - For their valuable time
    - For the order!

Section III

Pak Master 75 XL PLUS

Contents

Product Introduction

System Features

Specifications

Applications

Product Comparisons

Demo Tips

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PakMaster 75 XL PLUS

THERMAL DYNAMICS

3 YEAR WARRANTY

MADE IN THE U.S.A.

	Capacity
Genuine Cut	¾" (19mm)
Severance Cut	1" (25mm)

Thermal Dynamics has combined the proven reliability and performance of the XL series Plasma Cutting Systems PLUS increased the output amperage to 60 Amps, PLUS increased the warranty period to 3 years, PLUS added many new new features to create the new XL PLUS series. The unit has additional output current for added speed while maintaining their genuine cutting capacity. Through a simple change over procedure and use of appropriate input power cable and plug, this unit will accept multi-voltage input power from 208 vac to 460 vac +/- 10%, 50 Hz or 60Hz, single or three phase. 575 vac can be utilized with the addition of the optional transformer unit. The Smart Logic™ circuit protects the unit in the event that a higher input voltage is applied. A new ergonomic torch handle and trigger latch circuit provides greater operator comfort and ease of operation. The Smart Start™ circuit allows for automatic arc re-initiation if the cutting arc is interrupted and the Tip Saver™ circuit, prevents excessive tip wear at higher amperages should the tip accidentally touch the metal. These features makes the new XL PLUS series operator friendly, while maintaining maximum cut performance.

The **Pak Master 75 XL PLUS** which operates on compressed air or nitrogen, offers the "new" **PCH/M-60 Ergonomic Torch** for improved comfort and reduced fatigue, a "new" robust torch head design, and new torch leads providing improved durability and flexibility. With all these operator friendly features, this system is the best choice in the market.

System Features:

- **Genuine Cut Ratings - Quality Cuts @ 3/4"**
- **Smart Logic™ Over Voltage Protection**
- **Smart Start ™Auto Pilot Restart**
- **Tip Saver Current Fold Back Circuit**
- **Universal Input Power**
- **Continuously Variable Output Current Control**
- **Flow Through Design**
- **LED Status Lights**
- **Capacitive Discharge Pilot Arc Initiation**
- **Portable & Light Weight**
- **Gouging Capability**
- **Leads & Spare Parts Kit Storage**
- **Hand & Machine Torch Systems**
- **IP-23C Protection Certified -Water Spray Test**
- **CSA Certified to CSA22.2 No. 60**

PLUS

- **3 Year Warranty**
- **Trigger Latch Circuit**
- **Ergonomic Torch Handle and Bottom Trigger**
- **Improved Torch Leads Durability and Flexibility**
- **Increased Output for Improved Performance and Travel Speeds**

PAK MASTER XL PLUS PLASMA CUTTING SERIES

THERMAL DYNAMICS

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The Newest Addition To Our XL Family

THERMAL DYNAMICS

PakMaster™ 75 XL™ PLUS

3 YEAR WARRANTY

MADE IN THE U.S.A.

Genuine	¾" (19mm)	Cut
Severance	1" (25mm)	Cut

NEW
Hand / Machine
Plasma Cutting System

A World Class Leader

Genuine	¾” (19mm)	Cut
Severance	1” (25mm)	Cut

System Features:

- Genuine Cut Ratings - Quality Cuts @ 3/4”
- Smart Logic™ Over Voltage Protection
- Smart Start ™ Auto Pilot Restart
- Exclusive Tip Saver Circuit

  (Automatic Current Reduction when Tip is touched to Work Piece)
- Universal Input Power- 208-460vac 1ph/3ph
- Continuously Variable Output Current Control
- Flow Through Design
- LED Status Lights

THERMAL DYNAMICS

A THERMADYNE COMPANY

A World Class Leader

Genuine	¾" (19mm)	Cut
Severance	1" (25mm)	Cut

System Features:

- ***Portable & Light Weight***
- ***Gouging Capability***
- ***Leads Wrap & Spare Parts Kit Storage***
- ***Hand & Machine Torch Systems***
- ***IP-23C Protection Certified -Water Spray Test***
- ***CSA Certified to CSA22.2 No. 60***

THERMAL DYNAMICS

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Genuine	¾" (19mm)	Cut
Severance	1" (25mm)	Cut

PLUS...

- ***New 3 Year Warranty!***
- ***New Trigger Latch Circuit***
- ***Increased Output for Improved Performance and Travel Speeds***

THERMAL DYNAMICS

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THERMAL DYNAMICS

PakMaster™ 75 XL™ PLUS

3 YEAR WARRANTY

MADE IN THE U.S.A.

Genuine	¾" (19mm)	Cut
Severance	1" (25mm)	Cut

PLUS...

- ***New PCH-60 Ergonomic Torch Handle and Bottom Trigger***
- ***New Improved Torch Leads for Durability and Flexibility***
- ***Maximum Life™ Parts***

THERMAL DYNAMICS

A THERMADYNE COMPANY

THERMAL DYNAMICS

A THERMADYNE COMPANY

Specifications...

- *Genuine 3/4” (19 mm) Cut Capacity*
- *Variable Current Output 15-60 amps*
- *Multi-Voltage 208 - 460 Volt, 1/3 ph (54/27Amps,1ph or 31/15Amps,3ph) 50/60 Hz*
- *65% Duty Cycle @ 60 DCA*
  100% Duty Cycle @ 55 DCA
- *Smart Logic™ Over Voltage Protection*
- *Smart Start™ Auto Pilot*

PAK MASTER 75 XL PLUS

Cutting System Specification

Power Supply	
Output:	15-60 Amps - Continuously variable
Input Power:	208-460 VAC (+/-10%)
	1/3 Phase, 50/60Hz
	54/27 Amps 1 Phase
	31/15 Amps 3 Phase
Duty cycle:	65% @ 60 A/100% @ 50 A
Panel Controls:	On/Off Switch
	Run/Set/Latch Switch
	Output Current Potentiometer
Panel Indicators:	AC Power
	Temperature
	Gas Pressure
	DC Output
Dimensions:	Height: 16 (406mm)
	Width: 13” (330mm)
	Length: 24.8” (630mm)
Weight:	71 lbs. (32.2 Kg)
Capacity:	3/4” (19mm)
	1” (25.4mm) Severance
Work Cable Length:	20 ft (6.1m)

Torch	
Model:	PCH/M-60
Gas:	Air, Nitrogen
Gas Pressure:	60 PSI (4.1 Bar)
Gas Flow:	300 SCFH / 5 CFM (142 lpm)
Pilot:	CD Start/ Pulsed DC
Control:	Hand switch
	Remote Pendant
	CNC Interface Cable
Torch Lead Length:	25 ft (7.6m)
	50 ft (15.2m)

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Applications

- *General Metal Fabrication and Maintenance*
- *Paper Mill and Power Plant Maintenance*
- *In-Field Construction and Repair*
- *Pipe Beveling and Fabrication*
- *Oil Refineries and Chemical Plant Maintenance*

Applications

- ***Basic Machine Cutting Operations***
- ***Railroad And Rapid Transit Car Repairs***
- ***Conveyor Installations and Repair***
- ***Tank and Vessel Manufacture and Repair***

PM 75XL Plus

THERMAL DYNAMICS
A THERMADYNE Company

Genuine 3/4" Rated Cut Capacity - 1" Severence

COMPETITIVE COMPARISON	THERMAL DYNAMICS Pak Master 75XL PLUS	HYPERTHERM Powermax900	MILLER Spectrum 2050	ESAB PCM-875	LINCOLN Procut 55	Comments
	Plus					
Output Range	15-60 Amps	20-55 amps	20-50 amps	15-60amps	25-55 amps	True widespread Cutting Range
Cut Capacity	3/4" (19mm)	7/8" (22mm)	7/8" (22mm)	7/8" (22mm)	3/4" (19mm)	genuine 3/4" Plus Cut Capacity
Severance Cut	1" (25mm)	1 1/8" (29 mm)	1 1/8" (29 mm)	1 1/4" (32 mm)	1" (25 mm)	Competitive Maximum Thickness Cutting Capacity
Input Voltage	208 - 460 vac 1 or 3 ph 50/60 Hz	208 - 460 vac 1or 3 ph 50/60 hz	208 - 575 vac 1 or 3 ph	208/230 vac 1 or 3 ph 460 vac 3 ph 575 vac 3 ph	208-230 / 460 vac 1 or 3 ph	Offers widespread Input Voltage Range
Power Source	Inverter	Inverter	Inverter	Inverter	Inverter	Design allows for compact size and portability
Arc Starting	DC Pilot	Internal contact start	Internal contact start	DC Pilot	Touch Start	Smart Start technology provides ease of arc starting
Auto Pilot Restart	Yes	*No	Yes	Yes	Yes	For un-interrupted arc starting. Excellent for expanded metals
Flow-Thru Design	Yes	No	Yes	No	No	Flow-Thru design directs clean air to principal internal components
Tip Saver Circuit	Yes	No	No	No	No	Increases parts life by automatic current reduction if tip touches the work piece
Over Voltage Protection	Yes	Yes	Yes	No	No	Smart Logic protects unit from improper input voltages
Amperage Adjustment	Variable	Variable	Variable	Variable	Variable	One of the largest current ranges offered
Torch	PCH/M-60	PAC 125T/M	ICE-50	PT-27	PCT-80	Reliable proven torch design
Cutting Arc Visibility	Excellent	Fair	Fair	Good	Fair	Torch front end design allows for excellent visibility of arc and work piece
Dimensions	16 (406 mm) 13" (330 mm) 24.8" (630 mm)	19.6" (498 mm) 10.4" (264 mm) 23" (584 mm)	17" (432 mm) 12½" (318 mm) 24" (610 mm)	20.3" (516 mm) 16.1" (409 mm) 18.3" (465 mm)	12.6" (320 mm) 11" (279 mm) 26" (660 mm)	Smallest unit in it's class
Weight	71 lbs (32.3 kg)	72 lbs (32.6kg)	70 lbs (32kg)	87 lbs (39kg)	70 lbs (32kg)	Portable competive weight
Warranty	3 years	2 Year	3 Year	3 Year	3 Year	New 3 year warranty

Pak Master is a trademark of Thermal Dynamics Corp.
Spectrum is a trademark of Miller Electric Co.
Powermax is a trademark of Hypertherm Co.
Pro-Cut is a trademark of Lincon Electric Co.

***Optional Pilot Arc controller available**

6-Apr-99

THERMAL DYNAMICS
A THERMADYNE Company

Customer Application Requirements

Product Demonstration.

It is very important to understand the customer's application and cutting requirements prior to committing to perform a **PAK MASTER 75XL PLUS** demo. The following guide can assist in conducting a professional and quality demonstration which will enhance the finalization of the sale.

Customer Application Requirements:

- **Type and thickness of material to be cut most often** - determines the rating of unit to be proposed
- **Maximum material thickness to be cut**- determines the maximum severance capacity of system
- **Cut requirements**
  - piercing- reduces parts life- 50% reduction in system cutting capacity
  - edge starts
  - beveling- increases cutting capacity requirement
  - cut quality- determines speeds required, cut angles, surface finish
- **Shop or Portable use** - determines unit size, input power requirements, weight, etc.
- **Manual or machine operation**- determines cut quality, production requirements, duty cycle

Equipment Requirements:

- **Available input power** (1 or 3 ph) - what voltage and what electrical connectors required
- **Gases**- what gases required, PSI requirements, regulators if cylinder gases used
- **Supplies** - Gloves, Helmets, Safety Glasses, Cutting Glasses, Light gauge metal
- **Accessories** - Cutting guides, standoff guides

Demonstration Requirements:

- **Confirmation**
  - Date and time of demonstration
  - A decision maker will be present to witness demonstration
  - Selected the proper unit and is set up for proper input power and cutting requirements
  - New torch consumables are installed in torch
- **Sales presentation**
  - Be prepared with product features and benefits - emphasize product strengths
  - Prepared quote - have a quote prepared to show decision maker
  - Be prepared with cost analysis- competitive cutting methods, competitive equipment information

Performing the Demonstration:

- **Basic explanation of your objectives**
    - Process definition (if required)
    - Discuss products features and benefits
    - Safety issues- how they are to be applied in demonstration
    - Use of accessory items - cutting guides, standoff guides and how they can assist the operation
- **Demo the product**
    - Make preliminary cuts on materials and thickness that will easily demonstrate the strengths of the product - ***Control The Demo***
    - **Get the torch into the hands of an operator**
        - show them how the system operates - allow them to practice on same materials as used for preliminary cuts
        - how to properly hold the torch - comfort, visibility, accessibility
        - show the difference between drag and standoff cutting modes
        - show them how to use accessory items
        - allow them to use system on their intended application

Finalize the sale:

- **Re-emphasize the capabilities and strengths of the product**
- **Emphasize your "Value Added "**
    - Service
    - Product availability
    - Support
- **Overcome any customer objections**
    - Pricing
    - Desire to look at other competitive units before purchasing
    - Got to get quotes
- **Ask for the order**
    - Be prepared to offer immediate delivery
- **Thank the Customer**
    - For their valuable time
    - For the order!

Section IV

Pak Master 100 XL PLUS

Contents

Product Introduction

System Features

Specifications

Applications

Product Comparisons

Demo Tips

THERMAL DYNAMICS®

A THERMADYNE® Company

PakMaster 100 XL PLUS

THERMAL DYNAMICS

3 YEAR WARRANTY

MADE IN THE U.S.A.

Capacity	
Genuine Cut	1 ” (13mm)
Severance Cut	1 ¼” (19mm)

Thermal Dynamics has combined the proven reliability and performance of the XL series Plasma Cutting Systems PLUS increased the output amperage to 80 Amps, PLUS increased the warranty period to 3 years, PLUS added many new new features to create the new XL PLUS series. The unit has additional output current for added speed while maintaining their genuine cutting capacity. Through a simple change over procedure and use of appropriate input power cable and plug, this unit will accept multi-voltage input power from 208 vac to 460 vac +/- 10%, 50 Hz or 60Hz, single or three phase. 575 vac can be utilized with the addition of the optional transformer unit. The Smart Logic™ circuit protects the unit in the event that a higher input voltage is applied. A new ergonomic torch handle and trigger latch circuit provides greater operator comfort and ease of operation. The Smart Start™ circuit allows for automatic arc re-initiation if the cutting arc is interrupted and the Tip Saver™ circuit, prevents excessive tip wear at higher amperages should the tip accidentally touch the metal. These features makes the new XL PLUS series operator friendly, while maintaining maximum cut performance.

The **Pak Master 100 XL PLUS** which operates on compressed air or nitrogen, offers the “new” **PCH/M-80 Ergonomic Torch** for improved comfort and reduced fatigue, a “new” robust torch head design, and new torch leads providing improved durability and flexibility. With all these operator friendly features, this system is the best choice in the market.

System Features:

- **Genuine Cut Ratings - Quality Cuts @ 1”**
- **Smart Logic™ Over Voltage Protection**
- **Smart Start ™Auto Pilot Restart**
- **Tip Saver Current Fold Back Circuit**
- **Universal Input Power**
- **Continuously Variable Output Current Control**
- **Flow Through Design**
- **LED Status Lights**
- **Capacitive Discharge Pilot Arc Initiation**
- **Portable & Light Weight**
- **Gouging Capability**
- **Leads & Spare Parts Kit Storage**
- **Hand & Machine Torch Systems**
- **IP-23C Protection Certified -Water Spray Test**
- **CSA Certified to CSA22.2 No. 60**

PLUS

- **3 Year Warranty**
- **Trigger Latch Circuit**
- **Ergonomic Torch Handle and Bottom Trigger**
- **Improved Torch Leads Durability and Flexibility**
- **Increased Output for Improved Performance and Travel Speeds**

PAK MASTER XL PLUS PLASMA CUTTING SERIES

THERMAL DYNAMICS

A THERMADYNE COMPANY

The Newest Addition To Our XL Family

THERMAL DYNAMICS
PakMaster™ 100 XL™ PLUS
3 YEAR WARRANTY
MADE IN THE U.S.A.

Genuine	1" (25mm)	Cut
Severance	1-¼" (31mm)	Cut

NEW
Hand / Machine
Plasma Cutting System

A World Class Leader

Genuine	1” (25mm)	Cut
Severance	1-¼” (31mm)	Cut

System Features:

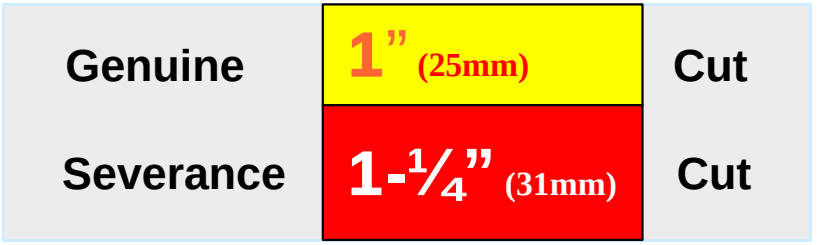
- Genuine Cut Ratings - Quality Cuts @ 1”
- Smart Logic™ Over Voltage Protection
- Smart Start ™ Auto Pilot Restart
- Exclusive Tip Saver Circuit

  (Automatic Current Reduction when Tip is touched to Work Piece)
- Universal Input Power- 208-460vac 1ph/3ph
- Continuously Variable Output Current Control
- Flow Through Design
- LED Status Lights

THERMAL DYNAMICS

A THERMADYNE COMPANY

A World Class Leader



System Features:

- ***Portable & Light Weight***
- ***Gouging Capability***
- ***Leads Wrap & Spare Parts Kit Storage***
- ***Hand & Machine Torch Systems***
- ***IP-23C Protection Certified -Water Spray Test***
- ***CSA Certified to CSA22.2 No. 60***

THERMAL DYNAMICS

A THERMADYNE COMPANY

Genuine	1" (25mm)	Cut
Severance	1-¼" (31mm)	Cut

PLUS...

- ***New 3 Year Warranty!***
- ***New Trigger Latch Circuit***
- ***Increased Output for Improved Performance and Travel Speeds***

THERMAL DYNAMICS

A THERMADYNE COMPANY

THERMAL DYNAMICS

PakMaster™ 100 XL™ PLUS

3 YEAR WARRANTY

MADE IN THE U.S.A.

Genuine	1” (25mm)	Cut
Severance	1-¼” (31mm)	Cut

PLUS…

- ***New PCH-80 Ergonomic Torch Handle and Bottom Trigger***
- ***New Improved Torch Leads for Durability and Flexibility***
- ***Maximum Life™ Parts***

THERMAL DYNAMICS

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THERMAL DYNAMICS

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Specifications...

- ***Genuine 1” (25mm) Cut Capacity***
- ***Variable Current Output 15-80 amps***
- ***Multi-Voltage 208 - 460 Volt, 1/3 ph (75/37Amps, 1ph or 43/21Amps, 3ph) 50/60 Hz***
- ***40% Duty Cycle @ 80 DCA***
  100% Duty Cycle @ 60 DCA
- ***Smart Logic™ Over voltage Protection***
- ***Smart Start™ Auto Pilot***

PAK MASTER 100 XL PLUS

Cutting System Specification

Power Supply	
Output:	15-80 Amps - Continuously variable
Input Power:	208-460 VAC (+/-10%)
	1/3 Phase, 50/60Hz
	75/37 Amps 1 Phase
	43/21 Amps 3 Phase
Duty cycle:	40% @ 80 A/100% @ 60 A
Panel Controls:	On/Off Switch
	Run/Set/Latch Switch
	Output Current Potentiometer
Panel Indicators:	AC Power
	Temperature
	Gas Pressure
	DC Output
Dimensions:	Height: 16 (406mm)
	Width: 13” (330mm)
	Length: 24.8” (630mm)
Weight:	75 lbs. (34 Kg)
Capacity:	1” (25.4mm)
	1 1/4” (31.8mm) Severance
Work Cable Length:	20 ft (6.1m)

Torch	
Model:	PCH/M-80
Gas:	Air, Nitrogen
Gas Pressure:	70 PSI (4.8 Bar)
Gas Flow:	400 SCFH / 6.6 CFM (190 lpm)
Pilot:	CD Start/ Pulsed DC
Control:	Hand switch
	Remote Pendant
	CNC Interface Cable
Torch Lead Length:	25 ft (7.6m)
	50 ft (15.2m)

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Applications

- *General Metal Fabrication and Maintenance*
- *Military Armored Vehicles*
- *In-Field Construction and Repair*
- *Pipe Beveling and Fabrication*
- *Structural Steel Contractors*

Applications

- ***Basic Machine Cutting Operations***
- ***Railroad And Rapid Transit Car Repairs***
- ***Mining Operations***
- ***Tank and Vessel Manufacture and Repair***
- ***Beam Splitting and Coping Operations***

PM 100XL Plus

THERMAL DYNAMICS® A THERMADYNE® Company

Genuine 1" Rated Cut Capacity - 1 1/4" Severence

COMPETITIVE COMPARISON	THERMAL DYNAMICS Pak Master 100XL PLUS	HYPERTHERM PowerMax 1100	MILLER Spectrum 3080	ESAB PCM-1125	LINCOLN ProCut 80	Comments
	Plus					
Output Range	**15-80 Amps**	30-80 Amps	20-80 Amps	20-70 Amps	35-85A	True widespread Cutting Range
Cut Capacity	**1" (25.4 mm)**	1" (25.4 mm)	1 1/4" (31 mm)	1 1/8" (29 mm)	1" (25.4 mm)	Genuine 1" Plus Cut Capacity
Severance Cut	**1 1/4" [30 mm]**	1¼" (30mm)	1 1/2" [38 mm]	1¼" (30mm)	1 1/4" [30 mm]	Competitive Maximum Thickness Cutting Capacity
Input Voltage	**208 - 460 vac 1 or 3 ph 50/60 Hz**	208 - 460 vac 1or 3 ph 50/60 hz	230v - 460v, 1 or 3 ph.	208/230 vac 1 or 3 ph 460 vac 3 ph 575 vac 3 ph	208-230 / 460 vac 1 or 3 ph	Offers widespread Input Voltage Range
Power Source	**Inverter**	Inverter	Inverter	Inverter	Inverter	Design allows for compact size and portability
Arc Starting	**DC Pilot**	Internal contact start	Internal contact start	DC Pilot	Touch Start	Smart Start technology provides ease of arc starting
Auto Pilot Restart	**Yes**	*No	Yes	Yes	Yes	For un-interrupted arc starting. Excellent for expanded metals
Flow-Thru Design	**Yes**	No	Yes	No	No	Flow-Thru design directs clean air to principal internal components
Tip Saver Circuit	**Yes**	No	No	No	No	Increases parts life by automatic current reduction if tip touches the work piece
Over Voltage Protection	**Yes**	Yes	Yes	No	No	Smart Logic protects unit from improper input voltages
Amperage Adjustment	**Variable**	Variable	Variable	Variable	Variable	One of the largest current ranges offered
Torch	**PCH/M-80**	Pac 135	ICE-80C	PT-27	PCT-80	Reliable proven torch design
Cutting Arc Visibility	**Excellent**	Fair	Fair	Good	Fair	Torch front end design allows for excellent visibility of arc and work piece
Dimensions	**16 (406 mm) 13" (330 mm) 24.8" (630 mm)**	19.6" (498 mm) 10.4" (264 mm) 25.1" (638 mm)	17" (432 mm) 12 1/2" (318 mm) 24" (610 mm])	20.3" (516 mm) 16.1" (409 mm) 18.3" (465 mm)	12.6" (320 mm) 11" (279 mm) 26" (660 mm)	Smallest unit in it's class
Weight	**75 lbs. (34.1 kg)**	77 lbs. (35 kg.)	74 lbs. (33.6 kg.)	87 lbs (39kg)	70 lbs (32kg)	Portable competive weight
Warranty	**3 Year**	2 Year	3 Year	3 Year	3 Year	New 3 year warranty

Pak Master is a trademark of Thermal Dynamics Corp.
Spectrum is a trademark of Miller Electric Co.
Powermax is a trademark of Hypertherm Co.
Pro-Cut is a trademark of Lincon Electric Co.

***Optional Pilot Arc controller available**

Rev: 06 Apr 99

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Customer Application Requirements

Product Demonstration.

It is very important to understand the customer's application and cutting requirements prior to committing to perform a **PAK MASTER 100XL PLUS** demo. The following guide can assist in conducting a professional and quality demonstration which will enhance the finalization of the sale.

Customer Application Requirements:

- **Type and thickness of material to be cut most often** - determines the rating of unit to be proposed
- **Maximum material thickness to be cut**- determines the maximum severance capacity of system
- **Cut requirements**
  - piercing- reduces parts life- 50% reduction in system cutting capacity
  - edge starts
  - beveling- increases cutting capacity requirement
  - cut quality- determines speeds required, cut angles, surface finish
- **Shop or Portable use** - determines unit size, input power requirements, weight, etc.
- **Manual or machine operation**- determines cut quality, production requirements, duty cycle

Equipment Requirements:

- **Available input power** (1 or 3 ph) - what voltage and what electrical connectors required
- **Gases**- what gases required, PSI requirements, regulators if cylinder gases used
- **Supplies** - Gloves, Helmets, Safety Glasses, Cutting Glasses, Light gauge metal
- **Accessories** - Cutting guides, standoff guides

Demonstration Requirements:

- **Confirmation**
  - Date and time of demonstration
  - A decision maker will be present to witness demonstration
  - Selected the proper unit and is set up for proper input power and cutting requirements
  - New torch consumables are installed in torch
- **Sales presentation**
  - Be prepared with product features and benefits - emphasize product strengths
  - Prepared quote - have a quote prepared to show decision maker
  - Be prepared with cost analysis- competitive cutting methods, competitive equipment information

Performing the Demonstration:

- **Basic explanation of your objectives**
    - Process definition (if required)
    - Discuss products features and benefits
    - Safety issues- how they are to be applied in demonstration
    - Use of accessory items - cutting guides, standoff guides and how they can assist the operation
- **Demo the product**
    - Make preliminary cuts on materials and thickness that will easily demonstrate the strengths of the product - ***Control The Demo***
    - **Get the torch into the hands of an operator**
        - show them how the system operates - allow them to practice on same materials as used for preliminary cuts
        - how to properly hold the torch - comfort, visibility, accessibility
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Finalize the sale:

- **Re-emphasize the capabilities and strengths of the product**
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    - Service
    - Product availability
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- **Overcome any customer objections**
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    - Got to get quotes
- **Ask for the order**
    - Be prepared to offer immediate delivery
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    - For their valuable time
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Section V

Product Viewpoint -XL PLUS Series

Contents

Performance Characteristics

Product Features

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Pak Master XL PLUS Series

Simply…

Great Product!

Great Performance!

Great Price!

OPERATOR'S Viewpoint

THERMAL DYNAMICS

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New 3 Year Warranty!

Pak Master XL PLUS Series

PLUS...

- *New Trigger Latch Circuit*
- *Increased Current Output for Improved Performance and Travel Speeds*
- *New Ergonomic Torch Handle and Bottom Trigger*
- *New Improved Torch Leads for Durability and Flexibility*

THERMAL DYNAMICS

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WORLD FAMOUS XL™ ARC CHARACTERISTICS

- **Simple Torch Design**

"With only 4 parts, there is no complicated choice of different style parts required for different applications - it's very easy to setup."

- **Maximum Arc Visibility**

"Allows easy trimming or sizing of work pieces, as well as following a cut path line."

- **New Ergonomic Torches**

" Provides improved operator comfort and reduced fatigue."

THERMAL DYNAMICS

A THERMADYNE COMPANY

WORLD FAMOUS XL™ ARC CHARACTERISTICS

SMART LOGIC™

"This circuit prevents damage to the unit should it be connected to high line voltage while it is linked for low voltage."

SMART START™—AUTO PILOT RESTART

Allows the Pilot arc to re-ignite when the cutting arc is interrupted, without having to recycle the torch switch or CNC start signal. "This is critical to maintaining high productivity by preventing long arc outages. The auto pilot restart is essential for all applications from expanded metal to everyday cutting and gouging."

THERMAL DYNAMICS

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WORLD FAMOUS XL™ ARC CHARACTERISTICS

UNIVERSAL INPUT POWER

" By a simple change over procedure and use of the appropriate input cable/plug, the units can accept input power from 208 to 460 VAC +/- 10%, single or three phase, 50 or 60 hertz." An optional transformer is available for use on 575 VAC.

TRIGGER LATCH CIRCUIT

"Prevents hand fatigue during long cuts by allowing the torch switch to be released after the cutting arc is established." The arc will remain on until the cutting arc is broken at the edge of the metal or if the torch is lifted away from the work piece. This feature can be disabled by the front panel switch for automated or hand applications where the operator needs to be able to stop the arc by release of the torch switch.

THERMAL DYNAMICS

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WORLD FAMOUS XL™ ARC CHARACTERISTICS

IP-23C PROTECTION CERTIFIED

Simulating outdoor weather conditions, this test consists of water being sprayed down at the unit for 10 minutes at a 60 degree angle at a rate of 150 gallons/hour. The unit must then be turned on and put under load without any harmful entry of water.

FLOW THROUGH COOLING

All of the semi-conductor devices are mounted onto a heatsink. The cooling air is channeled through the fins on the opposite side of the heatsink so that dirty environmental air does not flow directly over the switching devices. This helps to prevent build up of foreign material which could otherwise limit duty cycle or component life.

Section VI

System Ordering Information

Contents

Systems

Pak Master 50 XL PLUS

Pak Master 75 XL PLUS

Pak Master 100 XL PLUS

Torch/Leads

Torch Consumables

Remote Options/Accessories

Price List

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THERMAL DYNAMICS®

PAK MASTER XL™ PLUS PLASMA CUTTING SERIES

PAK MASTER 100XL PLUS

PAK MASTER 50XL PLUS

PAK MASTER 75XL PLUS

VIP System Ordering Information: The **VIP** package offers significant saving over purchasing the additional spare parts, filter and elements separately. These **V**alue **I**ncentive **P**ackages include power supply with 20' work cable and clamp, torch and leads, VIP spare parts kit*, standard spare parts kit, air filter with 2 replacement elements. Machine torch systems include plastic mounting tube and pinch block assembly. Remote Control not included with systems, see Remote Options below for ordering information.

*See Torch Specification Page for catalog numbers/quantities of parts included.

VIP System Value Incentive Package	Hand Torch 70°		Hand Torch 90°		Machine Torch 180°	
PAK MASTER	**25 ft. (7.6m)**	**50 ft. (15.2m)**	**25 ft. (7.6m)**	**50 ft. (15.2m)**	**25 ft. (7.6m)**	**50 ft. (15.2m)**
50XL PLUS	1-5035-V	1-5036-V	1-5037-V	1-5038-V	1-5039-V	1-5040-V
75XL PLUS	1-7555-V	1-7556-V	1-7557-V	1-7558-V	1-7559-V	1-7560-V
100XL PLUS	1-0075-V	1-0076-V	1-0077-V	1-0078-V	1-0079-V	1-0080-V

V= Voltage Suffix: (1) 208/230 vac 1ph setting with 50 amp input cable and plug (2) 460vac 3ph setting –No input cable or plug

Standard System Ordering Information: The standard systems include power supply with 20' work cable and clamp, torch and leads and spare parts kit. Machine torch systems include plastic mounting tube and pinch block assembly. Remote Pendant or CNC Cable are not included with systems, see Remote Options below for ordering information.

Standard System	Hand Torch 70°		Hand Torch 90°		Machine Torch 180°	
PAK MASTER	**25 ft. (7.6m)**	**50 ft. (15.2m)**	**25 ft. (7.6m)**	**50 ft. (15.2m)**	**25 ft. (7.6m)**	**50 ft. (15.2m)**
50XL PLUS	1-5045-V	1-5046-V	1-5047-V	1-5048-V	1-5049-V	1-5050-V
75XL PLUS	1-7565-V	1-7566-V	1-7567-V	1-7568-V	1-7569-V	1-7570-V
100XL PLUS	1-0085-V	1-0086-V	1-0087-V	1-0088-V	1-0089-V	1-0090-V

V= Voltage Suffix: (1) 208/230 vac 1ph setting with 50 amp input cable and plug (2) 460vac 3ph setting –No input cable or plug

Torch & Lead Combinations (Included with VIP and Standard Systems)

Lead Length	PCH-40			PCH-60			PCH-80		
	70°	90°	180°	70°	90°	180°	70°	90°	180°
25 FT (7.6M)	2-5035	2-5037	2-5039	2-6660	2-6662	2-6664	2-0080	2-0082	2-0084
50 FT (15.2M)	2-5036	2-5038	2-5040	2-6661	2-6663	2-6665	2-0081	2-0083	2-0085
Spare Parts Kit									
Cutting[1]	5-5055			5-7506			5-0008		
VIP Gouging[2]				5-7507			5-7507		

①Included with Standard Systems. See Torch Specification Page for catalog numbers/quantities of parts included.
②See Torch Specification Page for catalog numbers/quantities of parts included. The VIP package offers significant saving over purchasing the spare parts separately.

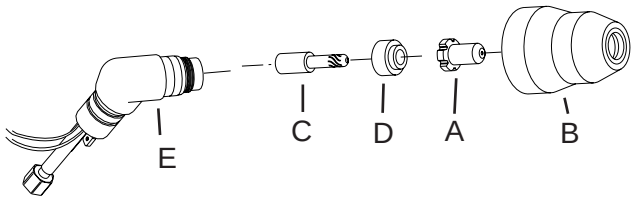
Remote Options:

Computer Control (CNC) Cable:	25 ft (7.6m)	8-5557
	50 ft (15.2m)	8-5558
Hand Pendant Control with 25 ft (7.6m) cable:		7-3114
Extension Cable 25 ft (7.6m) for Hand Pendant Control:		7-7744
Metal Mounting Tube with Pinion assembly		7-7745

THERMAL DYNAMICS®

PAK MASTER XL™ PLUS PLASMA CUTTING SERIES

PAK MASTER 50 XL PLUS PCH/M-40



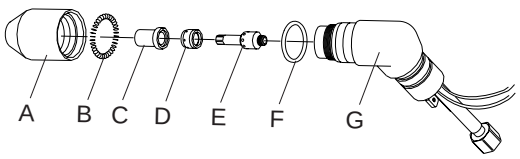
Specifications

Recommended operating pressure for clean, dry air or Nitrogen is: 70 PSI (4.8 Bar) Gas Flow Control
This system is not for use with Oxygen (O_2).

Part Description	Cat. Number	VIP Spare Parts Kit Qty	Standard Spare Parts Kit
C - Electrode	9-6506	25	3
D - Gas Distributor	9-6507	3	
A - Standoff Tip	9-6500	20	5
A - Drag Tip	9-6501	30	3
A - Gouging Tip	9-6502		
B - Shield Cup	9-6003	3	
B - Crown Shield Cup	9-6004		
E - Torch Head 70˚	9-8055		
E - Torch Head 90˚	9-5054		
E - Torch Head 180˚	9-8053		

(see Manual for enclosure halves and PIP wires

PAK MASTER 75 XL PLUS PCH/M-60

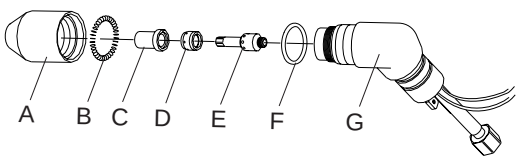


Specifications

Recommended operating pressure for clean, dry air or Nitrogen is: 60 PSI (4.1 Bar) Gas Flow Control
This system is not for use with Oxygen (O_2).

Part	Description	Cat. Number	VIP Spare Parts Kit Qty	Standard Spare Parts Kit
A	Shield Cup	8-7500	1	
A	Shield CupCrown	8-7507	1	
B	Coil Spring	9-7501	3	1
C	Tip, Cutting, 60 Amp, Air/N2	9-7726	40	5
C	Tip, Cutting 35 Amp, Drag	8-7503	10	2
C	Tip, Gouging	8-7506		
D	Gas Distributor, Cutting	8-7501	2	
D	Gas Distributor, Gouging	8-7508		
E	Electrode, Air/N2	8-7502	20	3
F	O-Ring	8-0532	5	1
G	Torch Head 70˚	9-8075		
G	Torch Head 90˚	9-8074		
G	Torch Head 180˚	9-8073		
N/S	Torch Standoff Guide	8-7575	1	

PAK MASTER 100 XL PLUS PCH/M-80



Specifications

Recommended operating pressure for clean, dry air or Nitrogen is: 70 PSI (4.8 Bar) Gas Flow Control
This system is not for use with Oxygen (O_2).

Part	Description	Cat. Number	VIP Spare Parts Kit Qty	Standard Spare Parts Kit
A	Shield Cup	8-7500	1	
A	Shield CupCrown	8-7507	1	
B	Coil Spring	9-7501	3	1
C	Tip, Cutting, 80 Amp, Air/N2	9-7728	40	5
C	Tip, Cutting, 55 Amp, Air/N2	8-7504		
C	Tip, Cutting 35 Amp, Drag	8-7503	10	2
C	Tip, Gouging	8-7506		
D	Gas Distributor, Cutting	8-7501	2	
D	Gas Distributor, Gouging	8-7508		
E	Electrode, Air/N2	8-7502	20	3
F	O-Ring	8-0532	5	1
G	Torch Head 70˚	9-8075		
G	Torch Head 90˚	9-8074		
G	Torch Head 180˚	9-8073		
N/S	Torch Standoff Guide	8-7575	1	

Thermal Dynamics is an ISO 9001 registered manufacturer.

THERMAL DYNAMICS®

Accessories

Air Filter Kit
Cat. No. 7-7507
All Systems

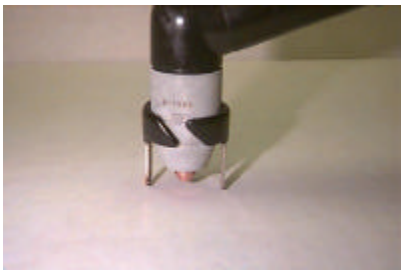
.85 Micron Particulate Extractor for use on compressed shop air

Cutting Guide KIt
Cat. No. 7-8910
All Systems

Easy add-on attachments to allow for straight line, circle, or bevel cutting

Standoff Guide KIt
Cat. No. 8-7575
PCH-60 and PCH-80 Torches

Simple, push-on guide attachment to allow for torch dragging without risk of touching tip



Portable Cart
Cat. No. 7-7777
All Systems

Rugged steel cart with large rubber wheels to maximize system portability

575 Volt Power Transformer Cat. No. 9-7500

For use with XL PLUS systems that require 575 Volt 3 ph input power

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1999 Pricing Addendum

Effective May 21, 1999

Cat #	Part Description	Pkg Qty.	Price Code	List Price
Systems	**PAK MASTER XL PLUS- VIP**			
1-5035-V	PAK MASTER 50XL Plus -System	1	M	$2,665.00
1-5036-V	PAK MASTER 50XL Plus -System	1	M	$2,755.00
1-5037-V	PAK MASTER 50XL Plus -System	1	M	$2,665.00
1-5038-V	PAK MASTER 50XL Plus -System	1	M	$2,775.00
1-5039-V	PAK MASTER 50XL Plus -System	1	M	$2,765.00
1-5040-V	PAK MASTER 50XL Plus -System	1	M	$2,855.00
1-7555-V	PAK MASTER 75XL Plus -System	1	M	$3,185.00
1-7556-V	PAK MASTER 75XL Plus -System	1	M	$3,295.00
1-7557-V	PAK MASTER 75XL Plus -System	1	M	$3,185.00
1-7558-V	PAK MASTER 75XL Plus -System	1	M	$3,295.00
1-7559-V	PAK MASTER 75XL Plus -System	1	M	$3,285.00
1-7560-V	PAK MASTER 75XL Plus -System	1	M	$3,375.00
1-0075-V	PAK MASTER 100XL Plus -System	1	M	$3,685.00
1-0076-V	PAK MASTER 100XL Plus -System	1	M	$3,815.00
1-0077-V	PAK MASTER 100XL Plus -System	1	M	$3,685.00
1-0078-V	PAK MASTER 100XL Plus -System	1	M	$3,815.00
1-0079-V	PAK MASTER 100XL Plus -System	1	M	$3,785.00
1-0080-V	PAK MASTER 100XL Plus -System	1	M	$3,915.00
Systems	**PAK MASTER XL PLUS- STD**			
1-5045-V	PAK MASTER 50XL Plus -System	1	M	$2,295.00
1-5046-V	PAK MASTER 50XL Plus -System	1	M	$2,385.00
1-5047-V	PAK MASTER 50XL Plus -System	1	M	$2,295.00
1-5048-V	PAK MASTER 50XL Plus -System	1	M	$2,385.00
1-5049-V	PAK MASTER 50XL Plus -System	1	M	$2,395.00
1-5050-V	PAK MASTER 50XL Plus -System	1	M	$2,485.00
1-7565-V	PAK MASTER 75XL Plus -System	1	M	$2,795.00
1-7566-V	PAK MASTER 75XL Plus -System	1	M	$2,905.00
1-7567-V	PAK MASTER 75XL Plus -System	1	M	$2,795.00
1-7568-V	PAK MASTER 75XL Plus -System	1	M	$2,905.00
1-7569-V	PAK MASTER 75XL Plus -System	1	M	$2,895.00
1-7570-V	PAK MASTER 75XL Plus -System	1	M	$3,005.00
1-0085-V	PAK MASTER 100XL Plus -System	1	M	$3,295.00
1-0086-V	PAK MASTER 100XL Plus -System	1	M	$3,425.00
1-0087-V	PAK MASTER 100XL Plus -System	1	M	$3,295.00
1-0088-V	PAK MASTER 100XL Plus -System	1	M	$3,425.00
1-0089-V	PAK MASTER 100XL Plus -System	1	M	$3,395.00
1-0090-V	PAK MASTER 100XL Plus -System	1	M	$3,525.00
Torch	**Torch And Lead Combinations**			
2-5035	PCH-40 70 w/ 25' (7.6m) leads	1	T	$395.00
2-5036	PCH-40 70 w/ 50' (15.2m) leads	1	T	$520.00
2-5037	PCH-40 90 w/ 25' (7.6m) leads	1	T	$395.00
2-5038	PCH-40 90 w/ 50' (15.2m) leads	1	T	$520.00
2-5039	PCM-40 180 w/ 25' (7.6m) leads	1	T	$525.00
2-5040	PCM-40 180 w/ 50' (15.2m) leads	1	T	$650.00
2-6660	PCH-60 70 w/ 25' (7.6m) leads	1	T	$595.00
2-6661	PCH-60 70 w/ 50' (15.2m) leads	1	T	$725.00
2-6662	PCH-60 90 w/ 25' (7.6m) leads	1	T	$595.00
2-6663	PCH-60 90 w/ 50' (15.2m) leads	1	T	$725.00
2-6664	PCM-60 180 w/ 25' (7.6m) leads	1	T	$760.00
2-6665	PCM-60 180 w/ 50' (15.2m) leads	1	T	$890.00
2-0080	PCH-80 70 w/ 25' (7.6m) leads	1	T	$595.00
2-0081	PCH-80 70 w/ 50' (15.2m) leads	1	T	$725.00
2-0082	PCH-80 90 w/ 25' (7.6m) leads	1	T	$595.00
2-0083	PCH-80 90 w/ 50' (15.2m) leads	1	T	$725.00
2-0084	PCM-80 180 w/ 25' (7.6m) leads	1	T	$760.00
2-0085	PCM-80 180 w/ 50' (15.2m) leads	1	T	$890.00

Cat #	Part Description	Pkg Qty.	Price Code	List
Parts	**PCH-40**			
9-6500	Tip, Cutting, Drag	5	A	$4.65
9-6501	Tip, Cutting, Standoff	5	A	$4.65
9-6506	Electrode, Cutting	5	A	$6.55
9-6507	Gas Distributor, Cutting	1	A	$17.25
9-6003	Shield Cup, Standard	1	A	$28.65
9-6004	Shield Cup, Crown	1	A	$38.55
9-8055	PCH-40 Torch head, 70º	1	T	$175.00
9-8054	PCH-40 Torch head, 90º	1	T	$175.00
9-8053	PCM-40 Torch head, 180º	1	T	$175.00
5-5055	Spare Parts Kit, Cutting	1	T	$49.00
Parts	**PCH-60, PCH-80**			
8-7503	Tip, Cutting,35 Amp, Air/N2	5	A	$5.40
8-7504	Tip, Cutting,55 Amp, Air/N2	5	A	$5.40
8-7726	Tip, Cutting,60 Amp, Air/N2	5	A	$5.40
8-7728	Tip, Cutting,80 Amp, Air/N2	5	A	$6.40
8-7506	Tip - Gouging	5	A	$5.40
8-7502	Electrode , Cutting	5	A	$7.90
8-7501	Gas Distributor, Cutting	1	A	$13.95
8-7508	Gas Distributor, Gouging	1	A	$13.95
8-7500	Shield Cup, Standard	1	A	$35.95
8-7507	Shield Cup, Crown	1	A	$42.00
9-7501	Coil Spring	1	A	$6.60
8-0532	O-Ring	5	A	$1.45
8-4220	Electrode Wrench	1	A	$8.60
9-8075	PCH-60, PCH-80 Torch head, 70º	1	T	$285.00
9-8074	PCH-60, PCH-80 Torch head, 90º	1	T	$285.00
9-8073	PCM-60, PCM-80 Torch head, 180º	1	T	$285.00
5-7506	Spare Parts Kit, PCH-60, Cutting	1	T	$59.00
5-7507	Spare Parts Kit, PCH-60/80, Gouging	1	T	$223.00
5-0008	Spare Parts Kit, PCH-80, Cuttting	1	T	$59.00
	Accessories / Options			
7-7507	Air Filter Kit- Dry Air	1	T	$99.00
7-7500	Dual Stage Air Filter Kit	1	T	$179.00
7-8910	Cutting Guide Kit	1	T	$179.00
7-7575	Standoff Cuttting Guide	1	T	$15.00
7-7777	Portable Cart	1	T	$148.00
8-5557	Computer Control (CNC) cable-25 ft.	1	T	$92.75
8-5558	Computer Control (CNC) cable-50 ft.	1	T	$167.50
7-3114	Hand Pendant control-25 ft.	1	T	$185.00
7-7744	Extension cable-25 ft. for Hand Pendant	1	T	$85.00
7-7745	Metal Mounting Tube w/ Pinion Assy.	1	T	$245.00

XLPL-Addend-5/99

WORLD HEADQUARTERS: 101 S. Hanley Road • St. Louis, MO 63105 • 314-721-5573 • FAX 314-746-2161

THERMADYNE.

THERMAL DYNAMICS

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Section VII

Who to Contact

Contents

Customer Services

Technical Services

Product Specialists

Other Key Personnel

THERMAL DYNAMICS®
A THERMADYNE® Company

Who to Contact at Thermal Dynamics

Customer Service

toll free	1-800-PLASMA-1
fax	1-603-298-5720
international	1-905-827-9797

General Technical Service

toll free	1-800-PLASMA-2
fax	1-603-298-5720
international	1-603-298-5711

Product Specialists - Are available at Factory direct Phone or Fax

Manual Plasma Cutting		Robert (Bob) Brown
	Email	bbrown@Thermadyne.com
Automated Plasma Cutting		Dave Routhier
	Email	drouthie@Thermadyne.com
Torches/Parts		Terry Raymond
	Email	raymond@Thermadyne.com

RGA/Warranty

	Maggie Wheeler
Email	mwheeler@Thermadyne.com

Customer & Technical Service Manager

	Scott MacDonald
Email	smacdona@Thermadyne.com

Marketing/Sales Support Manager Steve West

Section VIII

Product Literature

Contents

Product Color Brochure

THERMAL DYNAMICS®
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THERMAL DYNAMICS®

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PAK MASTER XL™ PLUS

PLASMA CUTTING SERIES

3 Year Warranty

PAK MASTER™ 50XL PLUS
GENUINE CUT ½" (13mm)
SEVERANCE CUT 3/4" (19mm)

PAK MASTER™ 75XL PLUS
GENUINE CUT ¾" (19mm)
SEVERANCE CUT 1" (25mm)

PAK MASTER™ 100XL PLUS
GENUINE CUT 1" (25mm)
SEVERANCE CUT 1¼" (31mm)

All the Features of the PAK MASTER XL Series Plus

- 3 YEAR WARRANTY
- TRIGGER LATCH
- INCREASED OUTPUT
- ERGONOMIC TORCH HANDLE
- IMPROVED TORCH LEAD DURABILITY AND FLEXIBILITY

THERMAL DYNAMICS®

PAK MASTER XL™ PLUS

PLASMA CUTTING SERIES

Thermal Dynamics has combined the proven reliability and performance of the XL Series, PLUS increased the output amperage, PLUS increased the warranty period to three years, PLUS added new features to create the new XL PLUS series. Each unit has additional output current for added speed while maintaining their genuine cutting capacity. Through a simple change over procedure and use of appropriate input power cable and plug, these units will accept multi-voltage input power from 208 vac to 460 vac +/- 10%, 50 Hz or 60Hz, single or three phase. 575 vac can be utilized with the addition of the optional transformer unit. The Smart Logic™ circuit protects the unit in the event that a higher input voltage is applied. A new ergonomic torch handle and trigger latch circuit provides greater operator comfort and ease of operation. The Smart Start™ circuit allows for automatic arc re-initiation if the cutting arc is interrupted and the Tip Saver™ circuit, prevents excessive tip wear at higher amperages should the tip accidentally touch the metal. These features make XL PLUS series operator friendly, while maintaining maximum cut performance.

PAK MASTER 50XL PLUS - ½" [12.7 mm] cutting and gouging capacity ¾" [19.1mm] severance
PAK MASTER 75XL PLUS - ¾" [19.1mm] cutting and gouging capacity 1" [25.4mm] severance
PAK MASTER 100XL PLUS - 1" [25.4mm] cutting and gouging capacity 1¼" [31.8mm] severance

The XL™ PLUS Series uses the new PCH/M-40, PCH/M-60, AND PCH/M-80 torches that are proven performers, offering reliable robust construction along with many operator friendly features, while operating on compressed air or nitrogen.

PAK MASTER 50XL PLUS, 75XL PLUS, AND 100XL PLUS system features:

- "Smart Logic"™ Over Voltage Protection
- "Smart Start"™ Auto Pilot Restart
- Trigger Latch
- Tip Saver Current Fold Back Circuit
- Universal Input Power
- IP-23C Protection Certified -Water Spray Test
- CSA Certified to CSA 22.2 No. 60
- Ergonomic Torch Handle
- Genuine Cut Ratings
- Gouging Capability
- Portable & Light Weight
- Leads & Spare Parts Kit Storage
- Flow Through Design
- User Friendly – Easy Operation
- LED Status Lights
- Hand & Machine Torch Systems
- Continuously Variable Output Current Control
- Capacitive Discharge Pilot Arc Initiation

THERMAL DYNAMICS®

PAK MASTER XL™ PLUS

PLASMA CUTTING SERIES

- **SMART LOGIC™**

This circuit prevents damage to the unit should it be connected to high line voltage while it is linked for low voltage.

- **SMART START™—AUTO PILOT RESTART**

Allows the Pilot arc to re-ignite when the cutting arc is interrupted, without having to recycle the torch switch or CNC start signal. This is critical to maintaining high productivity by preventing long arc outages. The auto pilot restart is essential for all applications from expanded metal to everyday cutting and gouging.

- **TIP SAVER™—CURRENT FOLD BACK**

When cutting at amperages in excess of 35 amps and the tip electrically contacts the work piece, the "Tip Saver" circuit automatically folds the current back to 35 amps thus protecting the tip from premature wear. In applications where this feature is not desirable, the Tip Saver circuit can be disabled via switches on the control pc board.

- **TRIGGER LATCH**

Prevents hand fatigue during long cuts by allowing the torch switch to be released after the cutting arc is established. The arc will remain on until the cutting arc is broken at the edge of the metal or if the torch is lifted away from the work piece. This feature can be de-selected by the front panel switch for automated applications or hand applications where the operator needs to be able to stop the arc by release of the torch switch.

- **UNIVERSAL INPUT POWER**

By a simple change over procedure and use of the appropriate input cable/plug, the units can accept input power from 208 to 460 VAC +/- 10%, single or three phase, 50 or 60 hertz. An optional transformer is available for use on 575 VAC.

- **IP-23C PROTECTION CERTIFIED**

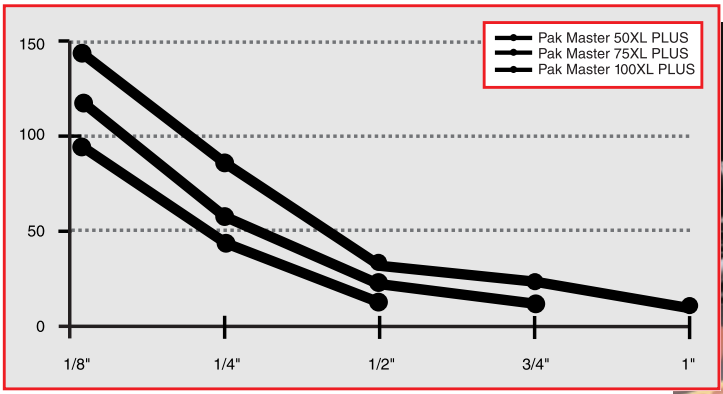
Simulating outdoor weather conditions, this test consists of water being sprayed down at the unit for 10 minutes at a 60 degree angle at a rate of 150 gallons/hour. The unit must then be turned on and put under load without any harmful entry of water.

- **FLOW THROUGH COOLING**

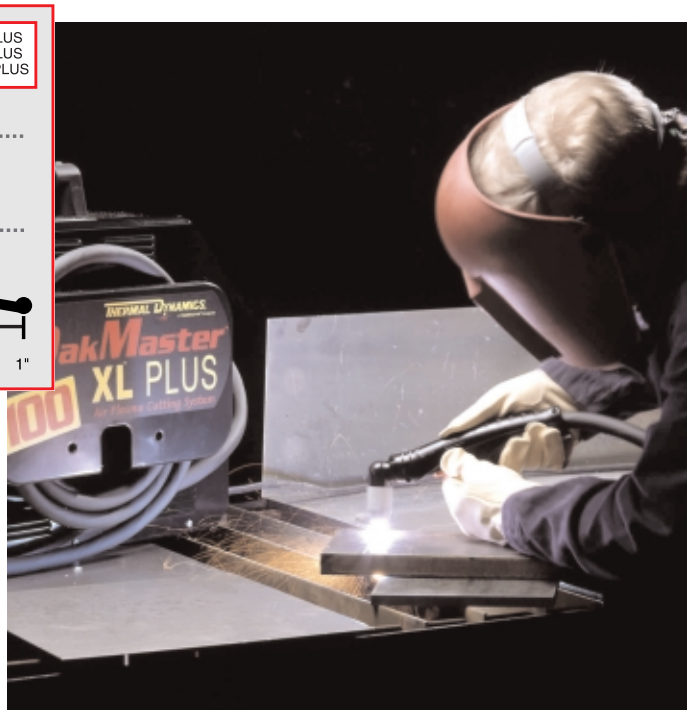
All of the semi-conductor devices are mounted onto a heatsink. The cooling air is channeled through the fins on the opposite side of the heatsink so that dirty environmental air does not flow directly over the switching devices. This helps to prevent build up of foreign material which could otherwise limit duty cycle or component life.

- **CSA NRTL/C APPROVED**

Canadian Standards Association is an independent testing laboratory and a Certification Body, which is recognized worldwide. The XL's are certified to comply with standard CSA22.2 No. 60.



XL™ PLUS IN PERFORMANCE



THERMAL DYNAMICS®

PAK MASTER XL™ PLUS PLASMA CUTTING SERIES

PAK MASTER 100XL PLUS

PAK MASTER 50XL PLUS

PAK MASTER 75XL PLUS

VIP System Ordering Information: The **VIP** package offers significant saving over purchasing the additional spare parts, filter and elements separately. These **V**alue **I**ncentive **P**ackages include power supply with 20' work cable and clamp, torch and leads, VIP spare parts kit*, standard spare parts kit, air filter with 2 replacement elements. Machine torch systems include plastic mounting tube and pinch block assembly. Remote Control not included with systems, see Remote Options below for ordering information.

*See Torch Specification Page for catalog numbers/quantities of parts included.

VIP System Value Incentive Package	Hand Torch 70°		Hand Torch 90°		Machine Torch 180°	
PAK MASTER	**25 ft. (7.6m)**	**50 ft. (15.2m)**	**25 ft. (7.6m)**	**50 ft. (15.2m)**	**25 ft. (7.6m)**	**50 ft. (15.2m)**
50XL PLUS	1-5035-V	1-5036-V	1-5037-V	1-5038-V	1-5039-V	1-5040-V
75XL PLUS	1-7555-V	1-7556-V	1-7557-V	1-7558-V	1-7559-V	1-7560-V
100XL PLUS	1-0075-V	1-0076-V	1-0077-V	1-0078-V	1-0079-V	1-0080-V

V= Voltage Suffix: (1) 208/230 vac 1ph setting with 50 amp input cable and plug (2) 460vac 3ph setting –No input cable or plug

Standard System Ordering Information: The standard systems include power supply with 20' work cable and clamp, torch and leads and spare parts kit. Machine torch systems include plastic mounting tube and pinch block assembly. Remote Pendant or CNC Cable are not included with systems, see Remote Options below for ordering information.

Standard System	Hand Torch 70°		Hand Torch 90°		Machine Torch 180°	
PAK MASTER	**25 ft. (7.6m)**	**50 ft. (15.2m)**	**25 ft. (7.6m)**	**50 ft. (15.2m)**	**25 ft. (7.6m)**	**50 ft. (15.2m)**
50XL PLUS	1-5045-V	1-5046-V	1-5047-V	1-5048-V	1-5049-V	1-5050-V
75XL PLUS	1-7565-V	1-7566-V	1-7567-V	1-7568-V	1-7569-V	1-7570-V
100XL PLUS	1-0085-V	1-0086-V	1-0087-V	1-0088-V	1-0089-V	1-0090-V

V= Voltage Suffix: (1) 208/230 vac 1ph setting with 50 amp input cable and plug (2) 460vac 3ph setting –No input cable or plug

Torch & Lead Combinations (Included with VIP and Standard Systems)

Lead Length	PCH-40			PCH-60			PCH-80		
	70°	90°	180°	70°	90°	180°	70°	90°	180°
25 FT (7.6M)	2-5035	2-5037	2-5039	2-6660	2-6662	2-6664	2-0080	2-0082	2-0084
50 FT (15.2M)	2-5036	2-5038	2-5040	2-6661	2-6663	2-6665	2-0081	2-0083	2-0085
Spare Parts Kit									
Cutting[1]	5-5055			5-7506			5-0008		
VIP Gouging[2]				5-7507			5-7507		

①Included with Standard Systems. See Torch Specification Page for catalog numbers/quantities of parts included.
②See Torch Specification Page for catalog numbers/quantities of parts included. The VIP package offers significant saving over purchasing the spare parts separately.

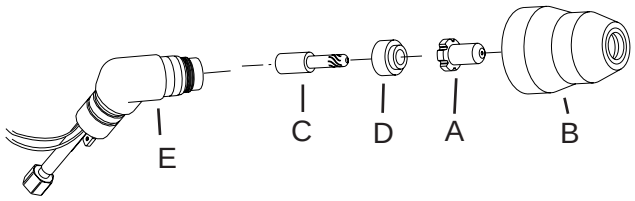
Remote Options:

Computer Control (CNC) Cable:	25 ft (7.6m)	8-5557
	50 ft (15.2m)	8-5558
Hand Pendant Control with 25 ft (7.6m) cable:		7-3114
Extension Cable 25 ft (7.6m) for Hand Pendant Control:		7-7744
Metal Mounting Tube with Pinion assembly		7-7745

THERMAL DYNAMICS®

PAK MASTER XL™ PLUS PLASMA CUTTING SERIES

PAK MASTER 50 XL PLUS PCH/M-40



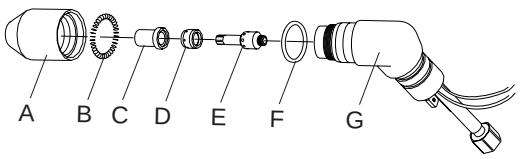
Specifications

Recommended operating pressure for clean, dry air or Nitrogen is: 70 PSI (4.8 Bar) Gas Flow Control
This system is not for use with Oxygen (O_2).

Part Description	Cat. Number	VIP Spare Parts Kit Qty	Standard Spare Parts Kit
C - Electrode	9-6506	25	3
D - Gas Distributor	9-6507	3	
A - Standoff Tip	9-6500	20	5
A - Drag Tip	9-6501	30	3
A - Gouging Tip	9-6502		
B - Shield Cup	9-6003	3	
B - Crown Shield Cup	9-6004		
E - Torch Head 70˚	9-8055		
E - Torch Head 90˚	9-5054		
E - Torch Head 180˚	9-8053		

(see Manual for enclosure halves and PIP wires

PAK MASTER 75 XL PLUS PCH/M-60

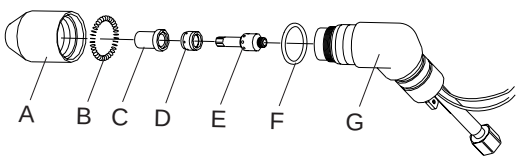


Specifications

Recommended operating pressure for clean, dry air or Nitrogen is: 60 PSI (4.1 Bar) Gas Flow Control
This system is not for use with Oxygen (O_2).

Part	Description	Cat. Number	VIP Spare Parts Kit Qty	Standard Spare Parts Kit
A	Shield Cup	8-7500	1	
A	Shield CupCrown	8-7507	1	
B	Coil Spring	9-7501	3	1
C	Tip, Cutting, 60 Amp, Air/N2	9-7726	40	5
C	Tip, Cutting 35 Amp, Drag	8-7503	10	2
C	Tip, Gouging	8-7506		
D	Gas Distributor, Cutting	8-7501	2	
D	Gas Distributor, Gouging	8-7508		
E	Electrode, Air/N2	8-7502	20	3
F	O-Ring	8-0532	5	1
G	Torch Head 70˚	9-8075		
G	Torch Head 90˚	9-8074		
G	Torch Head 180˚	9-8073		
N/S	Torch Standoff Guide	8-7575	1	

PAK MASTER 100 XL PLUS PCH/M-80



Specifications

Recommended operating pressure for clean, dry air or Nitrogen is: 70 PSI (4.8 Bar) Gas Flow Control
This system is not for use with Oxygen (O_2).

Part	Description	Cat. Number	VIP Spare Parts Kit Qty	Standard Spare Parts Kit
A	Shield Cup	8-7500	1	
A	Shield CupCrown	8-7507	1	
B	Coil Spring	9-7501	3	1
C	Tip, Cutting, 80 Amp, Air/N2	9-7728	40	5
C	Tip, Cutting, 55 Amp, Air/N2	8-7504		
C	Tip, Cutting 35 Amp, Drag	8-7503	10	2
C	Tip, Gouging	8-7506		
D	Gas Distributor, Cutting	8-7501	2	
D	Gas Distributor, Gouging	8-7508		
E	Electrode, Air/N2	8-7502	20	3
F	O-Ring	8-0532	5	1
G	Torch Head 70˚	9-8075		
G	Torch Head 90˚	9-8074		
G	Torch Head 180˚	9-8073		
N/S	Torch Standoff Guide	8-7575	1	

Thermal Dynamics is an ISO 9001 registered manufacturer.

THERMAL DYNAMICS®

PAK MASTER XL™ PLUS PLASMA CUTTING SERIES

PRODUCT SPECIFICATIONS

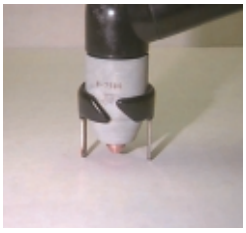
	PAK MASTER 50 XL PLUS Cutting System Specification	PAK MASTER 75 XL PLUS Cutting System Specification	PAK MASTER 100 XL PLUS Cutting System Specification
Power Supply			
Output:	15-40 Amps - Continuously variable	15-60 Amps - Continuously variable	15-80 Amps - Continuously variable
Input Power:	208-460 VAC (+/-10%) 1/3 Phase, 50/60Hz 35/17 Amps 1 Phase 20/10 Amps 3 Phase	208-460 VAC (+/-10%) 1/3 Phase, 50/60Hz 54/27 Amps 1 Phase 31/15 Amps 3 Phase	208-460 VAC (+/-10%) 1/3 Phase, 50/60Hz 75/37 Amps 1 Phase 43/21 Amps 3 Phase
Duty cycle:	100%@ 40A	65%@ 60A/100% @ 50A	40%@ 80A/100% @ 60A
Panel Controls:	On/Off Switch RUN/SET/LATCH Switch Output Current Potentiometer	On/Off Switch RUN/SET/LATCH Switch Output Current Potentiometer	On/Off Switch RUN/SET/LATCH Switch Output Current Potentiometer
Panel Indicators:	AC Power Temperature Gas Pressure DC Output	AC Power Temperature Gas Pressure DC Output	AC Power Temperature Gas Pressure DC Output
Dimensions:	Height: 16" (406mm) Width: 13" (330mm) Length: 24.8" (630mm)	Height: 16" (406mm) Width: 13" (330mm) Length: 24.8" (630mm)	Height: 16" (406mm) Width: 13" (330mm) Length: 24.8" (630mm)
Weight:	66 lbs. (29.9 Kg)	71 lbs. (32.2 Kg)	75 lbs. (34 Kg)
Capacity:	1/2" (13mm) 3/4" (19mm) Severance	3/4" (19mm) 1" (25.4mm) Severance	1" (25.4mm) 1 1/4" (31.8mm) Severance
Work Cable Length:	20 ft (6.1m)	20 ft (6.1m)	20 ft (6.1m)
Torch			
Model	PCH/M-40	PCH/M-60	PCH/M-80
Gas:	Air, Nitrogen	Air, Nitrogen	Air, Nitrogen
Gas Pressure:	70 PSI (4.8 Bar)	60 PSI (4.1 Bar)	70 PSI (4.8 Bar)
Gas Flow:	200 SCFH / 3.3CFM (95 lpm)	300 SCFH / 5CFM (142 lpm)	400 SCFH / 6.6CFM (190 lpm)
Pilot:	CD Start/ Pulsed DC	CD Start/ Pulsed DC	CD Start/ Pulsed DC
Control:	Hand switch Remote Pendant CNC Interface Cable	Hand switch Remote Pendant CNC Interface Cable	Hand switch Remote Pendant CNC Interface Cable
Torch Lead length:	25 ft (7.6m) 50 ft (15.2m)	25 ft (7.6m) 50 ft (15.2m)	25 ft (7.6m) 50 ft (15.2m)

ACCESSORIES

Air Filter Kit
Cat. No. 7-7507
All Systems
.85 Micron Particulate Extracture for use on compressed shop air systems

Cutting Guide Kit
Cat. No. 7-8910
All Systems
Easy add-on attachments to allow for straight line, circle cutting and beveling for all XL PLUS Systems

Standoff Cutting Guide
Cat. No. 8-7575
PCH-60 and PCH-80 Torches
Simple push-on guide attachment to allow for torch dragging without risk of touching tip



Smart Cart
Cat. No. 7-7777
All Systems
Rugged steel cart with large rubber wheels to maximize system portability

575 Volt Power Transformer Cat. No. 9-7500
For use with XL PLUS systems that require 575 Volt 3 ph input power

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